AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-9. (Canceled)

10. (New) A process for manufacturing super capacitors or quantum batteries storing electrical energy in resonance excited, crystalline, chemically dipolar nano-particles within an electrically insulating material comprising:

- mixing fluid insulating material and nano-particles to obtain a mixture,
- providing a preformed compound film, said compound film comprising an isolated metallic foil,
- applying said mixture onto said compound film by means of electrostatic spraying in order to obtain a coated film whereby said metallic foil acts as a counter electrode, said electrostatic spraying generating an electrical field; and
- forming geometrically exact layers and field-aligning said nano-particles by means of surface forces generated by said electrical field together with capacitive effects,
- thermal or radiation curing under a protective atmosphere.

11. (New) A process according to claim 10, further comprising the step of cutting said coated film to obtain plural films, and arranging said films in layers to obtain a multilayer sandwich structure.

12. (New) A process according to claim 10 or 11, wherein said insulating material is comprised of resin.

13. (New) A process for manufacturing super capacitors or quantum batteries storing electrical energy in resonance excited, crystalline, chemically dipolar nano-particles separated by an electrically insulating material, comprising:

- providing a carrier surface,
- alternately depositing a layer of nano-particles and a layer of insulating material onto said surface by means of chemical or physical vapor deposition in order to obtain a sandwich structure, wherein the layers overlap each other,
- annealing said sandwich structure at a temperature of above 800°C for achieving a Rutile type crystal phase, wherein the layers do not delaminate due to the different thermal expansion coefficients.

14. (New) A process according to any of claims 10-13, wherein said nano-particles are comprised of TiO_2.

15. (New) A process according to claim 13, wherein said insulating material is SiO_2.

16. (New) A process according to any of claims 10-12, wherein the capacitor is formed as or similar to a flat capacitor.

17. (New) A process according to any of claims 10-12, wherein the capacitor is formed as or similar to a wound capacitor.

18. (New) A process according to any of claims 10-13, wherein said nano-particles are selected to be nano-crystals.

19. (New) A super capacitor or quantum battery based on the physical effect that very small particles of a strong dipolar crystal material separated by an insulating media and under the stress of a strong electrical field and at a critical voltage are becoming conductive by means of virtual photon resonance, whereby the particles during a short time extremely concentrate the

homogeneous electrical field locally such that very fast and loss free exchanges of charges are provoked causing Dirac current pulses at constant voltages, the particles thereby taking up energy which is stored.